

Schellinger Construction
Application to Conduct Opencut Mining of Gravel
Flathead County, Montana

DRAFT

ENVIRONMENTAL ASSESSMENT

December 8, 2005

This environmental assessment (EA) is required under the **Montana Environmental Policy Act (MEPA)**. An EA functions to identify, disclose and analyze the impacts of an action, in this case operating a gravel pit over which the state must make a decision, so that an informed decision can be made. MEPA sets no environmental standards even though it requires analysis of both the natural and human environment. This document may disclose many impacts that have no legislatively required mitigation measures or over which there is no regulatory authority. The state legislature has provided no authority in MEPA to allow DEQ or any other state agency to require conditions or impose mitigations on a proposed permitting action that are not included in the permitting authority and operating standards in the governing state law, such as the Opencut Mining Act, the Clean Air Act of Montana, or any other applicable state environmental regulatory law. Beyond that, a company may agree to voluntarily modify its proposed activities or accept permit conditions.

The state law that regulates gravel-mining operations in Montana is the **Opencut Mining Act**. This law and its approved rules place operational guidance and limitations on a project during its life, and provides for the reclamation of land subjected to opencut materials mining. This law requires that a surety bond, cash deposit or other financial instrument be submitted to the state to cover the complete costs of reclaiming the site to its approved, post-mining land use.

The permit decision cannot be based upon the popularity of the project, but upon whether or not the proponent has met the requirements of the Opencut Mining Act, pursuant rules, and other laws pertaining to his proposed actions.

Project Name: Tutvedt 2 Site

Proponent: Schellinger Construction

Type and Purpose of Action: The applicant proposes to operate a new 40-acre gravel pit along Farm-To-Market Road near the junction with Church Drive in Flathead County approximately 7 miles northwest of the center of Kalispell. This proposal includes mining, crushing and transportation of approximately 1,500,000 cubic yards of sand and gravel over a period of 10 years. The pit would be dug approximately 35 feet deep in an area where the rocky surface soil averages 8 inches in thickness and the groundwater is estimated to be well below the surface. There are no plans to enter the groundwater at this site. Trucks would enter directly onto Farm-To-Market Road under restrictions placed by Flathead County and a Conditional Use Permit. Mining would daylight out to an existing swale to the southeast and would be reclaimed to pasture with graded slopes of no greater than 3:1, resoiled and seeded back to grass. Final reclamation would be done by December 2015.

Location: NW¼ Section 16, T29N, R22W

County: Flathead

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
<p>1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are fragile, compactible or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations?</p>	<p>The proposed mine is located on a gently southeastward sloping alluvial fan produced by outwash from Lost Creek within the Flathead River Valley. The deposit consists of stratified layers of water-worked outwash sand and gravel that covers the deeper bedrock. The site is an irrigated wheat field that has marginally poor yields due to weak soils for farming.</p> <p>Soil, which varies from 6 to 10 inches of well drained, rocky silt loam, would be salvaged and stockpiled away from the mine, roads and facility area. Following mining, grading and ripping, the soils would be replaced, disked and seeded to pasture.</p> <p>The site is located near the outward edge of a large alluvial fan, which is responsible for the deposition of the sand and gravel being mined. This fan is typical of many gravel deposits under permit elsewhere in Montana and is unremarkable in most ways. There is an ongoing investigation of high levels of nitrates and other contaminants in some of the shallow aquifers that underlie this fan. The mining operation proposed here would neither affect or be affected by the shallow water table in this area since mining would not intercept groundwater and there would be no water discharged from the operation that would enter the groundwater.</p>
<p>2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?</p>	<p>An existing small surface water pond in the bottom of an old dry pond has been used for many years for irrigation purposes approximately 200 feet east of the proposed permit area. A pump is used to supply water to a center pivot from this pond. A small amount of water would be used from this pond for dust control.</p> <p>There are 11 water wells in Section 16 whose total depths average 154 feet, static water levels average 108 feet, and yields average 131 gallons per minute. The closest well is a Tutvedt well located at UTM Z11, E692511, N5350329, was dug 217 feet deep in 2002, and yields 27 gallons per minute. The nearest well to the southwest belongs to James Hanson located at Z11, E691313, N5350156, was dug 26 feet deep in 1900, and yields 10 gallons per minute.</p> <p>The wells in this area tend to be extremely variable in depth and yield, which is typical across alluvial fan deposits. Water zones tend to pinch and swell across these fans with poor connectivity to each other, especially if there is much physical separation between wells. Some of the very shallow wells in this area have the highest yields, but are the most susceptible to surface contamination. Some wells less than 100 feet in depth have higher concentrations of nitrates than drinking water standards allow for human consumption (over 10 ppm nitrate-N), although the Tutvedt irrigation pond adjacent to the proposed permit area was very low in nitrates (0.1 ppm nitrate-N). Five of the 11 wells were drilled in the 1980's and 1990's to depths of 200 feet or deeper and have better chances of having safer drinking water than the shallower wells. One shallow well in Section 8, a half-mile northwest of the permit area had one sample taken in 2003 that showed nearly 40 ppm nitrate-N. A deeper well has been drilled to replace it.</p> <p>Special precautions would be taken to minimize possible contamination of the groundwater. All bulk fuel and lubricants would be kept inside a lined earthen berm. Portable equipment with fuel tanks such as loaders, a crusher, and trucks would be located in various places within the facility. Any accidental spills or leaks from equipment would be excavated and contaminated materials would be</p>

	properly disposed of. No waste or trash would be disposed of at the site. With these precautions, the quality and quantity of the groundwater should not be adversely impacted.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	Air quality may be degraded at times and there may be an increase in particulate matter. Dozers, loaders, crushers and trucking equipment typically cause dusty conditions in disturbed soil sites, especially during hot, dry periods. Dust would be controlled around the site by water truck and spray bars. Crushers are regulated for emissions and the equipment used must be tested and approved by the DEQ (Air Resources Management Bureau). The site is not within a Class I airshed.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?	There are no known rare or sensitive plants or cover types present in the site area. Vegetation consists of wheat stubble and some pasture grass and covers 90% of the ground. It would be removed as soil is stripped, and the site would be re-planted with species compatible with the proposed reclaimed use of pasture.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	Although the area is used primarily for agriculture, it also is used by whitetail deer, waterfowl, rodents, song birds, coyotes, foxes, raptors, insects and various other animal species. Population numbers for these species are not known. The proposed mine would not significantly degrade wildlife populations.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	The Natural Heritage Program and site evaluations have not revealed any endangered or threatened plant or animal species that would be directly affected. Bald eagles are known to range all along the Flathead River Valley, but no nesting sites are known on or near the proposed permit area. No adverse effects are anticipated on the eagles as a result of this proposed action.
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	Although there are cultural values in the general area, this site has been previously disturbed by modern man during farming activities, thus destroying the integrity of resources that may have existed. A surface reconnaissance did not discover any cultural, historical or archeological resources. The operator would give appropriate protection to any values or artifacts discovered in the affected area. If significant resources are found, the operation would be routed around the site of discovery for a reasonable time until salvage could be conducted. The State Historic Preservation Office would be promptly notified.
8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	<p>The site is visible from homes in the local area and to traffic along Farm-To-Market Road. There would be a deterioration of aesthetics while the operation is underway. However, reclamation would return the area to a visually acceptable landscape.</p> <p>Hours of operation for the site are proposed to be 7:00 am to 7:00 pm, Monday through Friday and 7:00 am to 2:00 pm on Saturday. Maximum speed within the pit would be restricted to 15 mph to retard dust, and berms would be constructed around the pit at least 8 feet high to help reduce noise and aesthetic impacts. In addition, please see condition 10 below of the conditional use permit issued by Flathead County on this proposed operation.</p> <p>Noise levels generated by operating equipment at the pit would generally be within the range of 60 to 90 decibels measured on-site, decreasing with distance. As a comparison, sound levels for ordinary activities such as close conversation at 60 decibels and music from a radio at 70 decibels are considered to be moderate. Levels above 90 decibels lasting for 8 hours or more are severe, and prolonged exposure can lead to hearing loss. There is also noise from loaders and truck traffic hauling to various projects. These impacts are intermittent and of relatively short duration.</p> <p>Noise decreases with distance. A crusher noise level of 85 decibels measured at 50 feet reduces to 79 decibels at 100 feet, 72 decibels at 200 feet and 65 decibels at 400 feet. Thus, the noise level would be reduced to moderate levels at the</p>

	<p>permit boundary and would continue to decline beyond that; however, it would still be audible.</p> <p>Noise is not cumulative. A truck operating at 65 decibels and loader at 75 decibels do not add up to the equivalent of a 140-decibel jet plane at takeoff.</p>
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?	No limited resources in the area would be used.
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other studies, plans or projects on this tract?	There is currently a study underway by the Remediation Division of DEQ to identify the source and distribution of nitrates in the groundwater underlying the Lost Creek Fan.
IMPACTS ON THE HUMAN POPULATION	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	On-site, heavy equipment and facilities including crushers, trucks and loaders would create hazards, but the operator must comply with all MSHA and OSHA regulations. The operator must employ proper precautions to avoid accidents. Dust from disturbed ground would be controlled on site by watering and chemical dust control as needed. Dust from the crusher would be controlled as required by the air quality permit.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	The acreage listed in the Type and Purpose of Action would be taken out of agricultural production and put into industrial/commercial use. Upon completion of mining, the land would be returned to grazing.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	No new jobs would be created as a result of this operation.
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	Additional taxes may be generated for the county and state in the form of income to the applicant and fuel and highway taxes paid by hauling products and equipment.
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc) be needed?	The operation would require periodic site evaluations by DEQ staff until such time as the site is successfully reclaimed to the required post-mining use. However, these evaluations are usually performed in conjunction with other area operations.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	<p>City/County zoning clearance has been obtained. The Flathead County Board of Adjustments has issued a Conditional Use Permit for this site. At its June 14, 2005 meeting, the Board granted Tutvedt's request to allow an extractive industry within the West Valley Zoning District under the following conditions:</p> <p style="text-align: center;"> CONDITIONAL USE PERMIT STAFF REPORT FCU-05-07a TUTVEDT FAMILY PARTNERSHIP EXTRACTIVE INDUSTRY June 14, 2005 </p> <p>1. Development and operation of the facility shall be performed in compliance with the information presented and approved except as otherwise modified by these conditions.</p>

2. Any change or modification to the use not specified in the application may not be effected unless specifically approved in writing either by the Flathead County Planning and Zoning Office or the Flathead County Board of Adjustment.
3. If the permittee fails to implement the use of the property as allowed by this permit within one year from the date of issuance, this permit shall expire one year from the date of issuance.
4. A Conditional Use Permit runs with the property. Should the property be sold and the new owner wish to continue the use of the property, said use shall remain in compliance with all terms of this conditional use permit AND be commenced within one year of transfer of ownership.
5. The applicant shall obtain a letter from the West Valley Rural Fire Department stating all access, parking, fire suppression, and emergency evacuation plans are acceptable.
6. Hours of operation shall be in conformance with those outlined in the application, 7:00 AM to 7:00 PM, Monday through Friday and 7:00 AM to 2:00 PM Saturday. No exception will be made for expanded hours allowed under Department of Environmental Quality regulations.
7. Blasting operations are expressly prohibited.
8. Two hundred feet of the approach onto Farm to Market Road shall be paved. Any future approach, if proposed and approved, shall be paved 200 feet. Requests for additional approaches will require approval by the Flathead County Road Department and the Flathead County Zoning Administrator.
9. Dust abatement shall be performed consistently and conscientiously to limit any impacts to the surrounding properties and general air quality.
10. Mufflers or other sound-dampening devices shall be installed on all generators to reduce noise impacts.
11. Any light used for the operation shall be directed in such a way as to be contained within the boundaries of the property and shall be hooded, screened or directed in a manner that it shall not be detrimental to the adjoining property owners or the neighborhood. Lights shall be extinguished at the close of business each day, with the exception of limited security lighting.
12. Soils stockpiled onsite shall be bermed to a minimum of eight feet. Berms shall be maintained to reduce noise and visual impact of the extraction operation on surrounding ownerships.
13. Stockpiled topsoil and overburden berms shall be revegetated in accordance with a plan approved by the County Weed and Parks Department. A signed Invasive Plant Management Form shall be obtained from the County Weed and Parks Department and submitted to Flathead County Planning and Zoning.
14. Pockets and stagnant pools of water resulting from surface drainage shall be treated with EPA-approved larvicides to eliminate breeding places for

mosquitoes and other insects. Method and chemical uses shall be approved by the Montana Department of Agriculture; or the ponds shall be periodically drained to prevent the creation of such breeding places. Any larvicides used shall be environmentally safe and pose no threat to water quality.

15. Both the landowner and operator of the mining operation shall comply with the Montana Opencut Mining Act, as administered by the Montana Department of Environmental Quality. The conditions of this permit shall be in addition to the requirements of the State.
16. Signage shall be erected to alert vehicular and pedestrian traffic to the presence of heavy truck travel along all travel routes, including Farm to Market Road, Church Drive, West Reserve Drive, Stillwater Drive, and West Valley Drive.
17. The applicant shall contact the Department of Natural Resources and Conservation to obtain proof of the applicant's existing water rights. Such proof shall be furnished to Flathead County Planning and Zoning.
18. All parking areas for employee vehicles and company vehicles shall be provided onsite.
19. The applicant shall obtain and furnish proof of an approach permit from the Flathead County Road and Bridge Department for the access onto Farm to Market Road and abide by any conditions regarding dust abatement and maintenance.
20. A Plan of Operations shall be signed and approved by the owner or operator and the Montana Department of Environmental Quality and a copy submitted to Flathead County Planning and Zoning.
21. Fencing shall be installed around the mining perimeter to prevent livestock and wildlife from inadvertently entering the site.
22. No more than 80 acres of the 320-acre site shall be in use at any time. "Use" is defined as extraction, any activities related to extraction, and reclamation.
23. The applicant shall notify Flathead County Planning and Zoning when an application is made to DEQ for any acreage beyond the pending 160-acre DEQ permit.
24. Items required in Conditions 5, 13, 17, 19, and 20 shall be furnished to Flathead County Planning and Zoning prior to commencement of operations.
25. Should the permittee fail or be unable to comply with any condition of approval, this permit is null and void.
26. The applicant will not store hazardous materials such as unleaded fuel onsite. Diesel fuel will be contained in a manner outlined by DEQ.
27. No trucks will travel within one mile of West Valley School during the hours of 7:30 AM to 8:30 AM and 3:00 PM to 4:00 PM when school is in session.

	28. Asphalt and concrete batch plant operations are prohibited.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	No wilderness or recreational areas are nearby or accessed through this tract.
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	The project would not add to the population or require additional housing.
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	The area has generally been cropland and pasture, with recent rural-residential development. Locals would notice a change in the area as gravel is being extracted, processed and hauled away. They would notice some dust, equipment working, and truck traffic coming and going. There would be a substantial change in aesthetics immediately at and near the site that would continue for the life of the mine. Upon reclamation, the site would be reclaimed to grazing and returned to rural use.
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	The change from an unpopulated agricultural area to a rural-residential area began over a decade ago with more residents building homes on smaller parcels in this area. Further change to a commercial gravel pit is another change that would be noticeable to the inhabitants in the area.
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	None.

22. Alternatives Considered:

A. Denial: The pit would not be permitted and impacts from mining would not occur. The owner of the gravel resource would be denied full utilization of his property at this time.

B. Approval of the application with mitigating conditions: The Plan of Operation has been written with mitigating conditions including water protection, soil salvage, and full reclamation. Further, the operation has been approved and conditioned by Flathead County with considerable mitigation.

23. Public Involvement, Agencies, Groups or Individuals contacted: State Historic Preservation Office; Montana Heritage Program; Flathead County Weed Control District; Flathead County Planning for zoning. This DRAFT EA will be sent out to the public on 12/9/05 and comments will be received for a period of three weeks.

24. Other Governmental Agencies with Jurisdiction, List of Permits Needed: Montana Department of Environmental Quality for Air Quality Permit; Mine Safety and Health Administration for safety permit.

25. Magnitude and Significance of Potential Impacts: Impacts are unlikely to be significant on the general environment because of the scope and location of the project, the lack of significant or threatened wildlife or habitat, and because of the mitigation measures placed in the Plan of Operation and the county's Conditional Use Permit.

26. Regulatory impact on private property: The analysis conducted in response to the Private Property Assessment Act indicates no impact on the use of private property.

27. References

Montana Bureau of Mines and Geology. 2005. Groundwater Information Center Report for 11 Well Records in Section 16, Township 29N Range 22W, an online data base at <http://mbmggwic.mtech.edu>. Retrieved August 2005.

Montana Natural Heritage Program. 2005. A letter with attachments from Kathy Lloyd to Debbie Voeller, DEQ, regarding species of special concern in the vicinity of the Tutvedt 2 tract. May 2005.

Alvey, Laura. 2005. West Valley Nitrates, a preliminary report. May 2005.

Recommendation for Further Environmental Analysis:

☐ EIS ☐ More Detailed EA ☒ No Further Analysis

EA Checklist Prepared By:	<u>Rod Samdahl</u>	<u>Reclamation Specialist</u>
	Name	Title

Approved By:	<u>Neil Harrington</u>	<u>Chief, IEMB</u>
	Name	Title
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